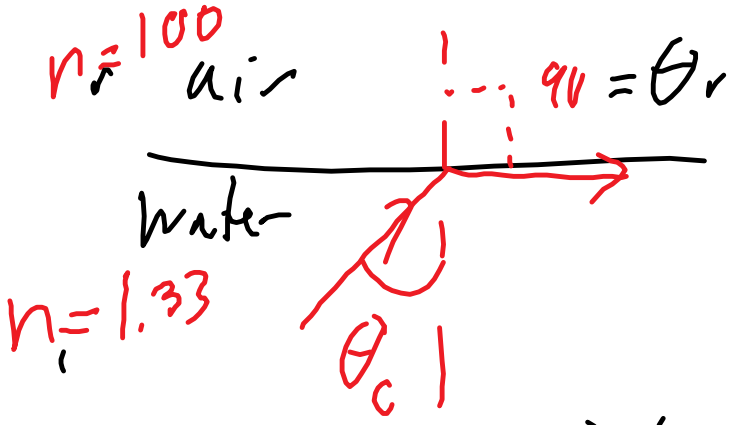
Critical angle water

$$n_i \sin\theta_i = n_r \sin\theta_r$$



$$n_i \sin\theta_i = n_r \sin\theta_r$$

$$1.33 \sin\theta_c = 1.00 \sin 90^\circ$$

$$\theta_c = \sin^{-1}\frac{1}{1.33}$$

$$\boxed{\theta_c = 48.8^\circ}$$

$C = 3.0\times10^8 \text{ m/s}$ $\quad n = \frac{C}{V}$

$$V_{water} = \frac{C}{n} = \frac{3.0\times10^8 \text{ m/s}}{1.33} = \boxed{2.2\times10^8 \text{ m/s}}$$

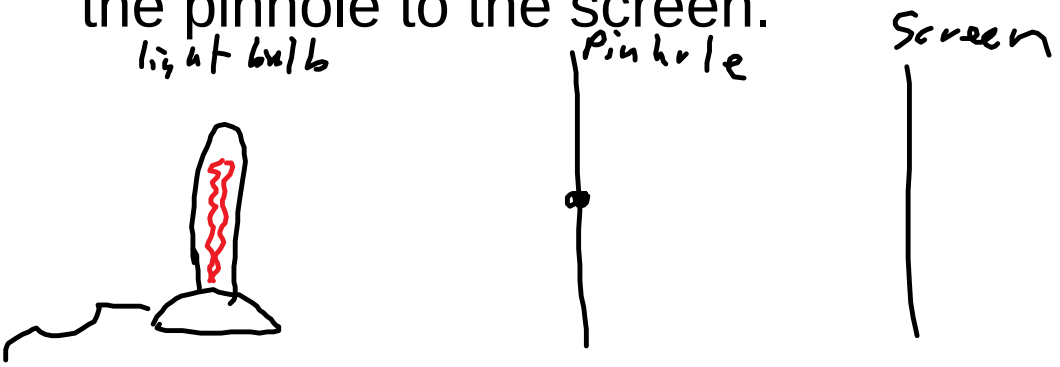
Geometric Optics (Chapter 18-19)
Not on the test Wednesday

Lab activity (no write-up for discussion)

2 parts:

1. Get a light, a screen with a pinhole and a screen and a metre stick.

a) Draw the light rays going from the light through the pinhole to the screen.



b) hi= the height of the image - size of the image On the screen
ho= the height of the object - size of the glowing filament in the light bulb
do= the distance from the object to the pinhole
di= the distance from the image to the pinhole
m is magnification - ratio of m=hi/ho
Label each on the diagram above.
Vary ho, do and di and observe the effect on hi.
- Derive an equation.

2. Get a mirror. Look at your image at different distances. What is the smallest mirror on the wall that will show your whole body?

Review problems from 14, 15, 16.1, 17